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ABSTRACT

Made up of five components, the School Planning, Evaluation, and Communication System (SPECS) is an approach to program planning and evaluation applicable to all instructional and noninstructional programs and activities. As such, it focuses on outcomes, processes, and inputs in a continuous cycle of planning, evaluation, and replanning. As well as being applicable to individual programs, SPECS can be used as a districtwide design for program assessment and development that compares district program outcomes with broad community goals. Successful implementation of SPECS includes several months of preparation, a long-term strategy, a multiyear master plan, an indistrict coordinator, adequate provision of time for staff member participation, sufficient inservice training, and adequate resources. A three-phase series of activities has been developed to facilitate the implementation process. SPECS produces immediate effects such as informational products and long-term effects such as more systematic program planning and evaluation, a more systematic view of the school and classroom, greater efforts to individualize instruction, and increased role clarity. (Author/JM)

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SPECS: WHAT IT IS & WHAT IT DOES

SCHOOL PLANNING, EVALUATION & COMMUNICATION SYSTEM

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CASEA
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Eugene, Oregon
1975

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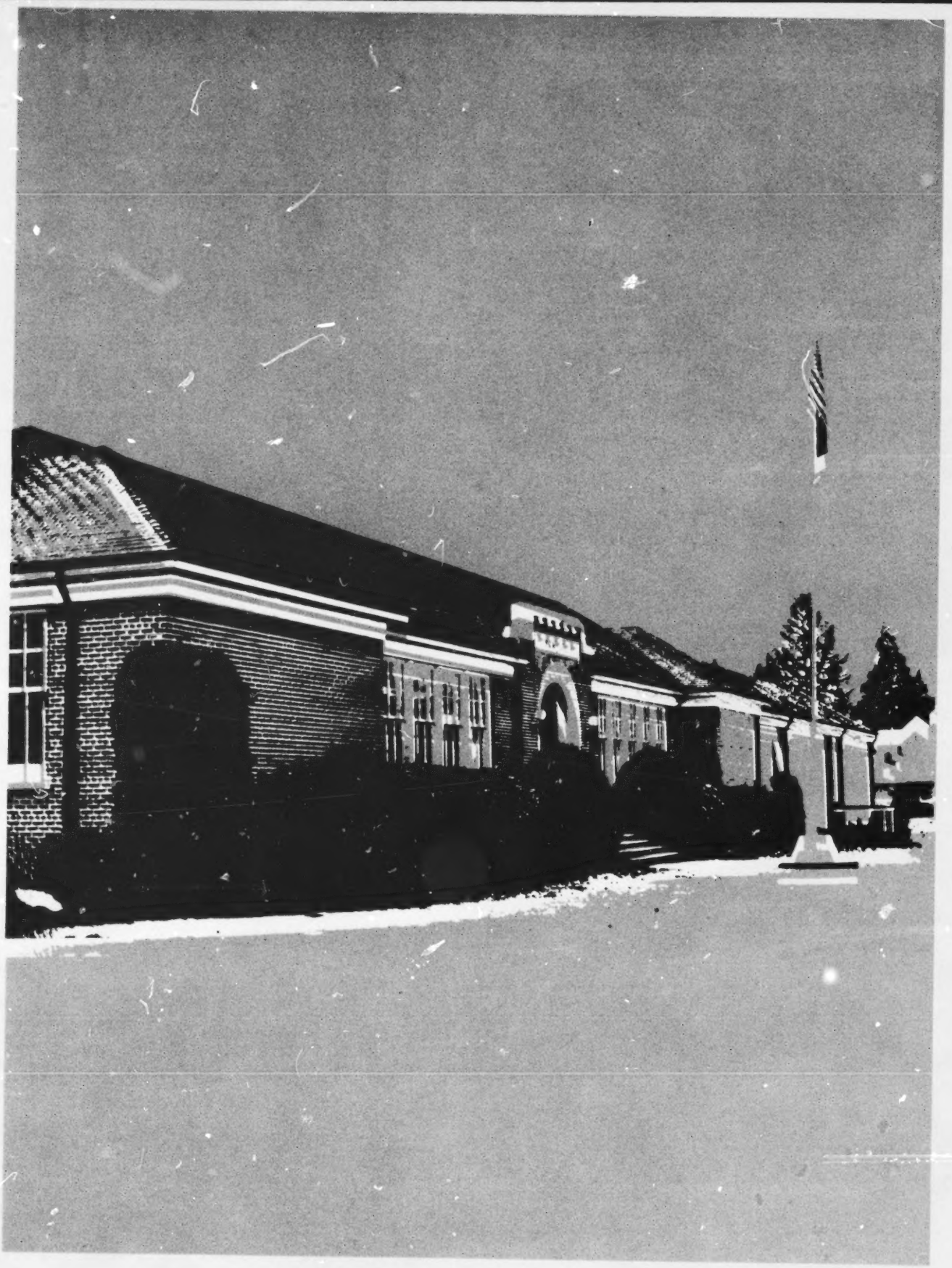

Preface

CASEA is the research and development unit of the Center for Educational Policy and Management at the University of Oregon. The center is part of a network of educational research and development centers and regional laboratories originally funded by the U.S. Office of Education and now supported by the National Institute of Education.

The development of SPECS—School Planning, Evaluation, and Communication System—began in June 1969, when Terry L. Eidell and I first attempted to conceptualize a data-based program planning and evaluation system for public schools and to develop an initial set of related procedures and materials. During the next three years, we took advantage of every possible opportunity to test our ideas and materials on practicing school personnel during special presentations and in university classrooms and school district inservice workshops. In addition, we entered a three-year agreement in September 1970 with South Lane School District in Cottage Grove, Oregon, to engage in a cooperative, pilot effort to implement and simultaneously modify the five components of the system.

As a pilot project, the South Lane experience achieved most of its objectives. To varying degrees of completeness and satisfaction, all five components of SPECS were implemented in the district and generated useful information for district personnel. Everyone in the project had ample opportunity to experiment with new ways of systematically and explicitly planning, evaluating, and replanning school programs. And the project was sufficiently developmental that all of the recommended SPECS procedures, as well as the materials supporting them, were continually open to revision and refinement as experience dictated.

Perhaps most important, however, the project lasted long enough to allow both its positive and negative effects to be felt. After three years, it resulted in a number of accomplishments and benefits that confirmed the value of systematic, data-based program planning and evaluation in schools; at the same time, it also revealed a number of important weaknesses in SPECS itself, in its procedures and materials, and in the particular strategy employed to implement it in South Lane. As the special task force from the Oregon State Department of Education concluded in its own final assessment of the pilot project:

> *The South Lane School District has provided a very useful service to the department and to other districts by way of piloting the use of an educational management system which is to a large extent a prototype of the management program embodied in the proposed revision of public school standards. South Lane has had its successes and its trials in mounting the program, but that is the way of new ventures. Both the successes and the problems of the South Lane experience can be used to advantage, if its lessons are applied by the department and other districts, along with those of other like endeavors.*

Most assuredly, those of us at the center who have been responsible for the continuing refinement of SPECS and for its implementation in other school districts in the United States have drawn very heavily upon the experiences encountered and the many lessons learned in South Lane. In a very real sense, because of its creative and innovative staff and school board, South Lane has truly been a "lighthouse" school district for state departments and other school districts throughout the United States that are seriously interested in designing, testing, and implementing a comprehensive, district-wide system for improved program planning, evaluation, and replanning.[1]

[1] Several center reports on the SPECS pilot project are now nearing completion. These include a case history of the three-year developmental effort, an independent ethnography begun during the third year of the project, and a report on the survey of district staff conducted at the end of each year. Further information about these reports can be obtained from the editor of the center.

Since mid-1973 and termination of the center's formal involvement in South Lane School District, SPECS has undergone a thorough review and revision in an effort to profit from lessons learned during the prior four years of developmental work. Only its two basic concepts—the SPECS approach to program planning and evaluation and the SPECS systems design for districtwide program assessment and development—have remained essentially intact. Entirely new procedures have been developed for introducing SPECS to personnel in a school district, for carefully planning its implementation, and for gradually phasing its five components into a district. And the original SPECS materials used in South Lane have been thoroughly revised and greatly expanded in light of gaps and difficulties discovered during the pilot project.

These revised materials include a set of orientation materials for introducing SPECS to teachers, administrators, and school board members; a series of implementation booklets relevant to the system's five components; and an array of illustrative and actual documents for successfully implementing each component.

In addition, since mid-1973, many of the revised and expanded SPECS concepts, procedures, and materials either have been or are now being carefully field-tested in nearly a dozen school districts in the United States. In addition to teachers and administrators in each district, this continuous testing and refinement has involved one or more coordinators of SPECS in each site, a cadre of specially trained SPECS consultants, and several staff members of the center. Some of the center's staff members have been primarily interested in SPECS as a program planning and evaluation system; others have been more interested in carefully documenting its implementation processes, costs, and effects in each site.

The purpose of this particular monograph is to introduce SPECS—what it is and what it is designed to do for the staff, students, board, and citizens of a public school district. Following an introductory section on the challenge to which the system is addressed, the monograph describes SPECS in detail as (1) an approach to program planning and evaluation, (2) a systems design for districtwide program assessment and development, (3) a set of implementation activities and materials, and (4) a set of intended effects—both immediate and long-term.

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A preface to a monograph on SPECS would be incomplete without my grateful acknowledgement of the many individuals, both inside and outside the center, who have contributed so substantially to its development during the past five years. They include the various project officers, first at the U.S. Office of Education and more recently at the National Institute of Education, who have lent their support to the SPECS program since its inception in 1969; the teachers, administrators, and school board members in South Lane School District, who were willing to "give it a go" between 1970 and 1973; John Kohl, former executive director of the National School Development Council, which hopefully has benefited as much from as it has given to a continuing collaborative relationship with the center; Robert Ellis, Mary Millar, Edward Flocco, and Lloyd DuVall of General Learning Corporation, who superbly produced the early SPECS materials and successfully coordinated over 40 two-day SPECS orientation workshops between 1972 and 1973; and the small cadre of 23 educators who have been involved in SPECS (many since 1971) as workshop trainers and potential SPECS consultants to school districts throughout the country, including professors Charles Achilles, Harold Collins, John Corrozi, William Danenburg, Richard DeRemer, Kenneth Erickson, Edward Flocco, Ralph Forsythe, William Furtwengler, Alan Gaynor, Robert Heller, Larry Hughes, Robert Ireland, John Johansen, Howard Johnson, John Kohl, Gerald Mansergh, Joseph Mazur, Gerald Rasmussen, Thomas Stark, Robert Throop, J. B. White, and Richard Wynn.

Closer to home, I want to express my special thanks to my colleagues on the SPECS development team—to Harold Walker for his considerable assistance during preparation of this monograph, and to Lloyd DuVall and Barbara Cole for their remarkable patience and helpful reactions to its content; to Max Abbott, director of the center, Richard Carlson and Paul Goldman of the center's staff, and Raymond Hanson in South Lane School District for their interest and suggestions; and to Marvin Boggs, Alan Zinn, Jeff Grass, and Susan Spradling for their usual fine job of design, editing, typing, and production. Finally, despite his departure from the center in mid-1973, the influence of Terry Eidell continues to pervade the basic intentions of the system, its underlying conceptions, and many of its operational procedures and materials.

Hopefully, then, this monograph presents an accurate and helpful overview of SPECS itself—a comprehensive system for explicit, data-based program planning and evaluation in public schools.

John M. Nagle
SPECS Program Director
January 1975

I. Introduction

Think for a moment about public school districts and their various ongoing programs and activities. For example . . .

- teachers prepare daily or weekly instructional plans that they then carry out with students.
- business managers pay bills and prepare periodic cost accounting reports.
- curriculum committees meet periodically to define course and program objectives, revise existing curriculum guides, and design new instructional programs.
- parents and citizens express their opinions--both about what schools should be doing for students and about how they should be doing it.
- students attend classes, do homework, take tests, and periodically receive report cards.
- budget committees prepare and justify annual operating budgets.
- building principals and department chairmen visit classrooms to observe instruction, and then later they confer with teachers about specific instructional objectives and activities.
- school boards define district priorities, develop policy, allocate resources, and sanction the many instructional and administrative procedures required for day-to-day operation of a district's schools.

Perhaps because of their variety and scope, these many ongoing programs and activities in a public school district frequently occur in relative isolation from one another. Moreover, detailed information is rarely collected and used to plan and evaluate them. As a result, few staff members in the nation's 17,000 school districts can satisfactorily answer the following questions, either for themselves or for others:

1. How well do we document the outcomes, processes, and costs of our current programs and activities—both instructional and noninstructional?
2. How well do our program results match our program plans?
3. How well do we justify and explain our annual operating budgets in terms of specific program outcomes for students?
4. How well do we know what our community expects of its schools?
5. How well do we achieve our districtwide program objectives? And how well do those program achievements meet our community's broad educational expectations?
6. And finally, do we regularly plan and evaluate programs on the basis of verifiable data about past program performance?

Put another way, few staff members in the nation's public schools make explicit, either for themselves or for others, precisely what it is they are trying to do for students, how they are doing it, at what costs, and most important, with what results.

Prior to the late 1960s, this lack of explicit, comparable, integrated, and shared information about ongoing school programs and activities created few problems for the personnel in most public school districts. Still relatively insulated from public scrutiny and from demands for public and professional accountability, teachers, administrators, and school board members were seldom pressed to demonstrate in terms of student learning the expected and actual outcomes of the instructional processes they employed and the public dollars they expended.

All that has begun to change, however, during the past decade. Demands upon public schools have soared in the face of a declining supply of dollars to meet those demands. In the face of a serious erosion of the public's traditional, almost unquestioned support of education, the pressure upon schools for some form of accountability continues to increase. The harsh reality today is that public schools—from preschools to universities—can ill afford simply to assume continued public acceptance and financial support for their many ongoing activities. As never before, they must find improved ways of building public confidence, allocating limited resources on a rational basis, planning and evaluating complex programs of activities, and assessing the degree to which specific programs do or do not contribute to the achievement of more broadly defined educational goals and expectations.

With each passing year, more state legislatures have enacted some form of accountability legislation for their public schools. Of the more than 25 states in which such legislation now exists, some have mandated development of comprehensive testing and assessment procedures comparable to those currently being attempted at the national level. Others now require local school district personnel to develop extensive information systems and to employ more data-based techniques in managing school programs and allocating resources. And still others are gradually moving to adopt both performance-based criteria for accrediting their public school districts and competency-based criteria for preparing, certifying, and evaluating the professional personnel who work in them. In addition, the release in 1973 of the U.S. Office of Education's revised edition of *Handbook Two*—the basic manual for budgeting and cost accounting in nearly all public school districts in the United States—promises to stimulate even more attention during the next decade to specific "programs" of activities in schools—initially to their dollar costs, eventually to their educational outcomes as well.[1]

In sum, it seems increasingly imperative that those responsible for public schools—including teachers, administrators, and school board members—significantly sharpen their skills in planning, evaluating, and replanning district programs. Even more important, they must gradually devise improved techniques for making explicit the costs and benefits of those programs. After more than five years of developmental work, including a three-year pilot project in an operating school district, we propose SPECS—School Planning, Evaluation, and Communication System—as one possible way by which the personnel in a public school district can respond effectively to this growing challenge.

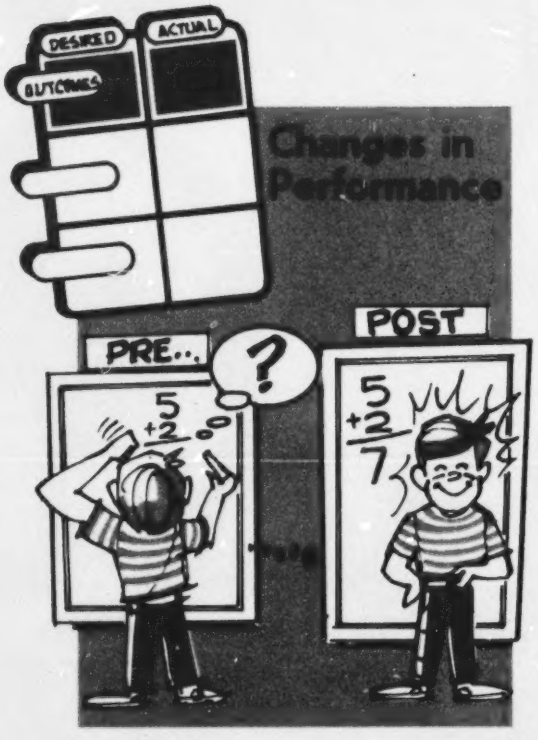
[1] U.S. Office of Education, **Financial Accounting: Classification and Standard Terminology for Local and State School Systems,** Revised Edition. Washington, D.C.: Government Printing Office, 1973.

II. SPECS As An Approach to Program Planning and Evaluation

Crucial to SPECS is a particular view of what it means to plan, implement, evaluate, and replan any program of activities in a school. This view remains the same whether the program is directly related to the instruction of students—like the teaching of American history and fourth grade language arts—or only indirectly related—like the provision of pupil transportation services and the maintenance of school district buildings. Similarly, the view remains essentially the same regardless of the duration of the program—one day, one week, one semester, or one entire school year—and regardless of the number of individuals involved in the program—one student or a group of students, one teacher, a team of teachers, or an entire school faculty. In effect, the SPECS approach to program planning and evaluation is applicable to all instructional and noninstructional programs and activities carried out in schools.

We begin by thinking in terms of three kinds or categories of information about a program of activities: its outcomes, its processes, and its inputs.

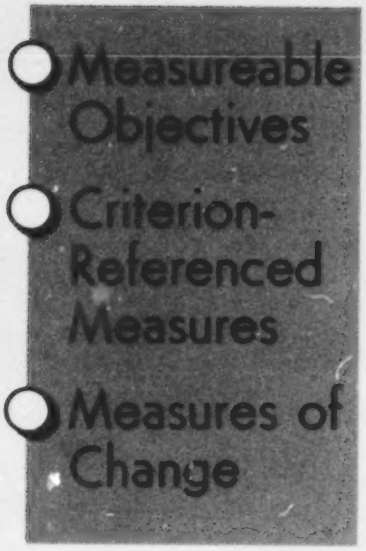
Program Outcomes



To the extent possible, the outcomes of a program are always identified in SPECS in terms of "specific changes in behavior or performance." Usually this means changes in the performance of the program's clients. For example, since providing instruction is the principal purpose of a school, outcomes usually refer to changes in the performance of students. But they can also refer quite appropriately to changes in the performance of other individuals in a school—teachers and administrators, for example—if they are clients of the program; and outcomes occasionally can refer even to changes in the organizational characteristics of a classroom, a school, or an entire school district.

The outcomes of a program—whether it is instructional or noninstructional in nature—can be of two kinds: desired and actual. A program's goals and objectives describe the program's **desired outcomes,** for they specify either the terminal characteristics or the specific changes in those characteristics that the program is designed to encourage or effect. On the other hand, measures of performance or of the changes realized during the program identify its **actual outcomes.** Throughout SPECS, this distinction between intentions and results—between desired and actual states of a program—is considered crucial to the process of program planning and evaluation.

Perhaps even more crucial in its implications is the definition of outcomes as "specific changes in behavior or performance." First, the focus on "behavior or performance" encourages program planners to identify desired outcomes for programs in such a way that actual outcomes can later be observed, measured, and verified. A general, nonmeasurable goal or objective, while undoubtedly a useful starting point for describing desired program outcomes, is useful later for assessment purposes only if it can be defined operationally in terms of one or more performance objectives or achievement indicators. This is not to suggest, of course, that all program objectives must always be measurable, for sometimes the most significant objectives of a program are those that either cannot or will not be measured.

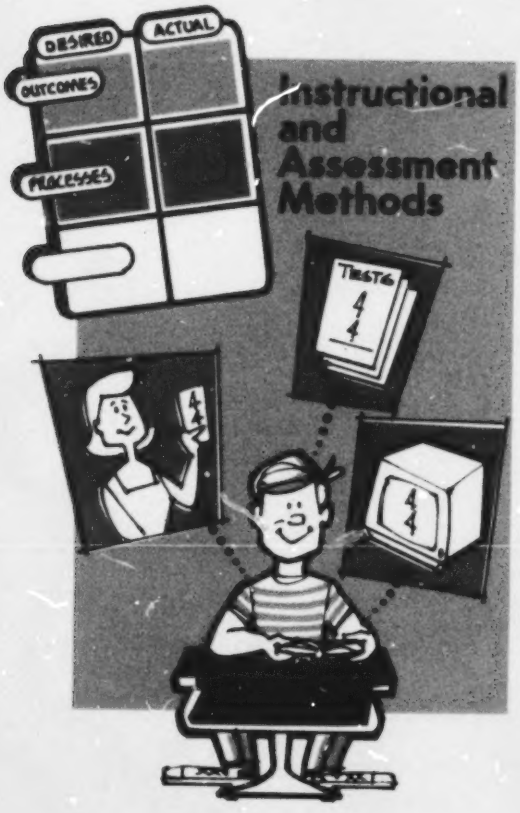


What does seem important, however, is that this identification of measurable and nonmeasurable objectives be a conscious decision made by those who are responsible for the particular program.

Second, the focus on "behavior or performance" requires those who are responsible for measuring actual program outcomes to develop and use criterion-referenced rather than norm-based assessment instruments. For many public school teachers and administrators, given typical preservice training programs and the usual orientation of educators to standardized tests and to the normal "bell-shaped" curve for describing student achievement, this shift to criterion-referenced measurement represents a rather dramatic change in thinking about test construction, item selection, record-keeping, and the analysis of results.

And third, the definition of program outcomes as measures of "change" requires attention to the desirability, problems, and logistics of obtaining measures of performance at least twice, once before a program begins and once after. For a variety of reasons, including lack of time, materials, and skills, the three interrelated assessment tasks of translating nonmeasurable objectives into valid and measurable indicators, preparing relevant criterion-referenced instruments, and then measuring performance on those indicators both before and after instruction are rarely considered to be an integral part of program planning and evaluation in schools. They are simply not among the standard operating procedures carried out by most teachers, administrators, and support personnel in a school district.

Program Processes

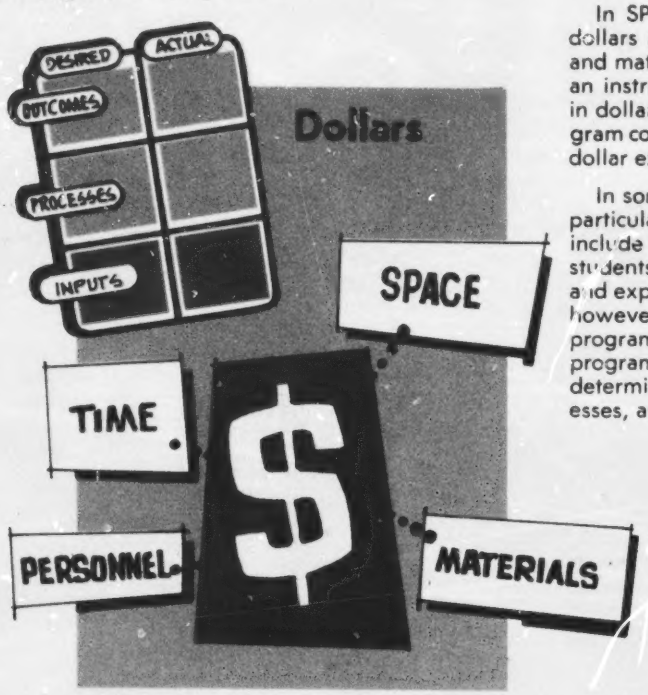


If outcomes identify the ends of a program, then its processes are the specific means employed in the program to achieve those ends. In an instructional program like second grade reading or introductory drama, processes include such things as the program's specific curricular materials, its organization of time and students, the means employed to measure results, the specific exercises done by students, and the homework assigned. In a non-instructional program like pupil transportation, processes include all the various activities that must be carried out to transport students to and from school in minimal time and at minimal cost—for instance, designing routes, developing schedules, hiring drivers, purchasing and maintaining buses, and regularly assessing the effectiveness of the total transportation system. Presumably, of course, there is in every program at least an implicit causal relationship between the particular set of processes selected for the program and its desired outcomes.

Once again, though, it is important to distinguish between what is intended and what is actually done. Curriculum guides and daily or weekly lesson plans almost always describe only the **desired processes** or procedures of a program; by contrast, videotapes, teacher-kept logs, and reports based on explicit observation schedules describe some of the **actual processes** carried out during the program. Similarly, whereas a printed bus schedule and roster of drivers describe some of the intended processes of a pupil transportation program, daily logs prepared by those drivers, mileage records, and comments solicited from parents and students regarding the current quality of transportation services register important information about the program's actual processes.

Ironically, despite the value of knowing what works and what does not in any effort to improve a set of activities, educators tend to collect and share far more information about the desired procedures and results of their programs than they do about their actual activities and the actual results of those program activities for clients.

Program Inputs



In SPECS, inputs are defined strictly in terms of dollar resources—the dollars required to purchase whatever time, personnel, space, equipment, and materials are necessary to carry out a particular set of processes within an instructional or noninstructional program. A program budget identifies in dollars the required or **desired inputs** of the program; by contrast, a program cost accounting report identifies the program's **actual inputs** in terms of dollar expenditures.

In some program planning and budgeting systems, inputs to programs—particularly to instructional programs—are defined in such a way that they include not only dollars, but also characteristics or variables like the IQ of students, their past history and socioeconomic background, and the skills and experience levels of staff members employed in the program. In SPECS, however, these particular variables are considered to be constraints upon a program, rather than inputs to it. They are regarded not as resources of the program, but as important factors that need to be considered carefully when determining the program's particular objectives, designing its related processes, and, eventually, analyzing its results.

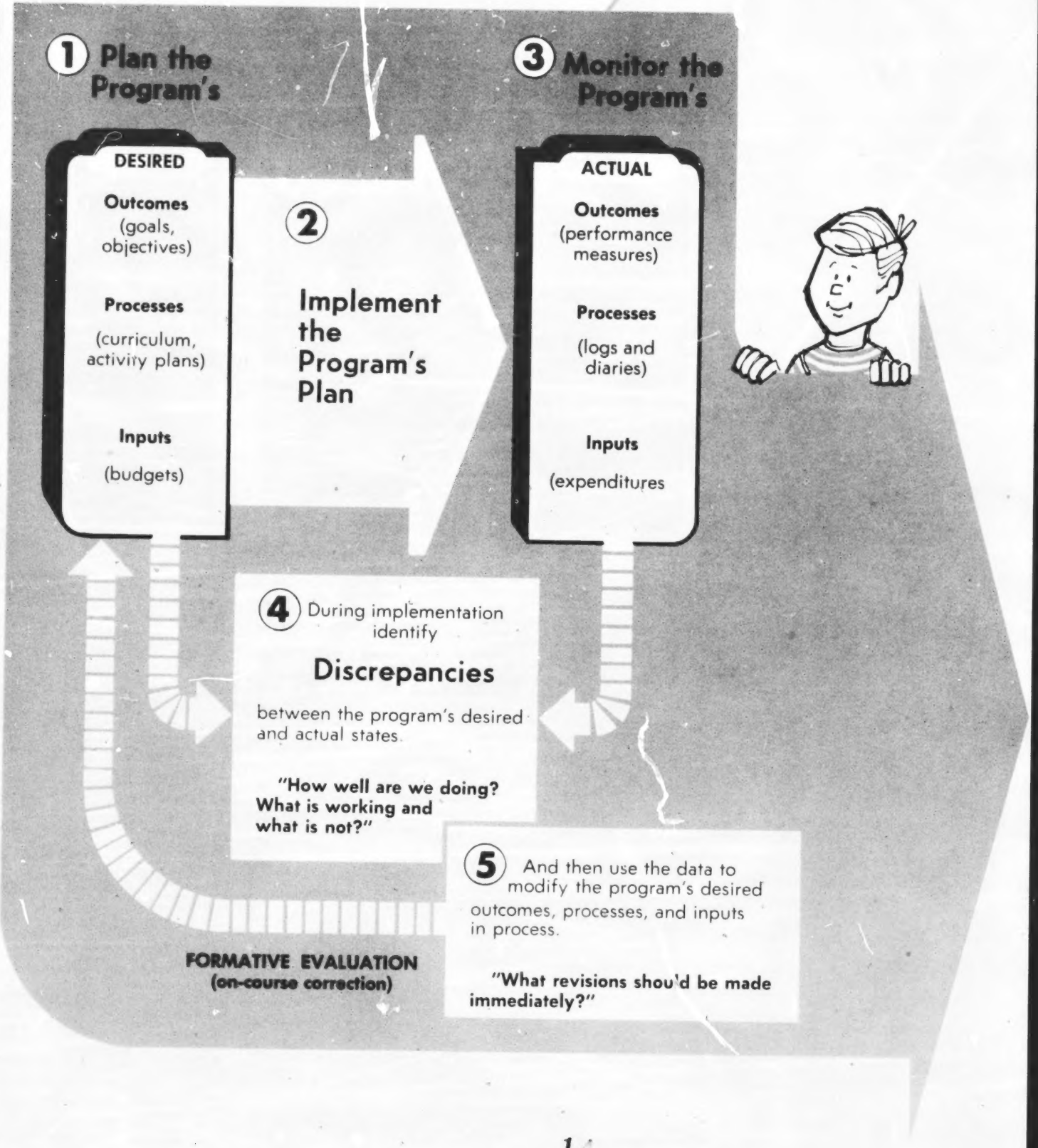
Program Planning, Evaluation, and Replanning

Given these three kinds of information about a program—its outcomes, its processes, and its inputs—and given the added distinction between the program's desired state and its actual state, we can now turn to what it means specifically in SPECS to plan, evaluate, and replan an instructional or noninstructional program.

Program planning, at whatever level of detail it is carried out, is the process of making explicit prior to implementation the specific combination of outcomes, processes, and inputs that those responsible for the program would like to see realized. For example, a program plan for an instructional program identifies the program's desired outcomes (or instructional objectives), its desired processes (or planned instructional, evaluative, and classroom management procedures), and its desired inputs (or required resources). Note that in SPECS a plan includes not only a prescription for action, but also a description of the ends toward which that action is directed.

Program evaluation takes its cues from a specific program plan and involves those who are responsible for the program in (1) monitoring its implementation, (2) collecting data on its actual outcomes, processes, and inputs, and (3) then identifying and analyzing discrepancies between the program's original desired state and its actual state. Depending upon the frequency and timing of data collection, it is possible to conduct three quite different kinds of program evaluation.

First, if data about the program's actual outcomes, processes, and inputs are collected regularly as those processes are gradually being implemented, these data can be used immediately to modify the program's objectives, its remaining planned processes, its remaining budget, or some combination of the three. For example, a brief quiz administered early in an instructional program may well indicate that students lack even the most basic skills


1 Plan the Program's
DESIRED
Outcomes (goals, objectives)
Processes (curriculum, activity plans)
Inputs (budgets)
2
Implement the Program's Plan
3 Monitor the Program's
ACTUAL
Outcomes (performance measures)
Processes (logs and diaries)
Inputs (expenditures
4 During implementation identify
Discrepancies
between the program's desired and actual states.
"How well are we doing? What is working and what is not?"
5 And then use the data to modify the program's desired outcomes, processes, and inputs in process.
"What revisions should be made immediately?"
FORMATIVE EVALUATION
(on-course correction)

required for the program, and that the program's remaining objectives and procedures are completely unrealistic and should be modified to meet students' current ability levels. This kind of "in process" evaluation is sometimes identified as **formative evaluation.**

Second, when the program has been completed, the full array of data regarding both its desired outcomes, processes, and inputs and its actual outcomes, processes, and inputs can be used to answer the culminating questions, "Did the program do what it was designed to do? And if not, why not?" This kind of *post facto* evaluation in which discrepancies between desired and actual states are identified and analyzed at the conclusion of a program is sometimes referred to as **summative evaluation.**

And third, the evaluative data collected during one cycle of a program can be used immediately to develop a revised plan for the program's next cycle of operation. Objectives can be modified on the basis of data, new processes can be designed on the basis of experience, and evidence of past accomplishments can be used to justify entirely new budgetary allocations. This is truly what it means to behave cybernetically—that is, to be self-corrective and use explicit information about the past as a basis for developing plans for the future. This kind of cybernetic, adaptive behavior is, of course, the ultimate goal of any systems approach to program planning and evaluation.

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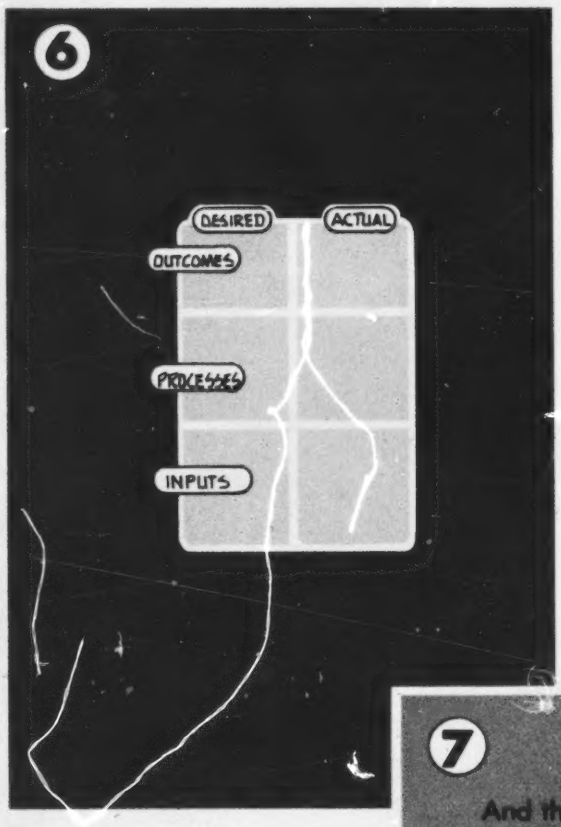
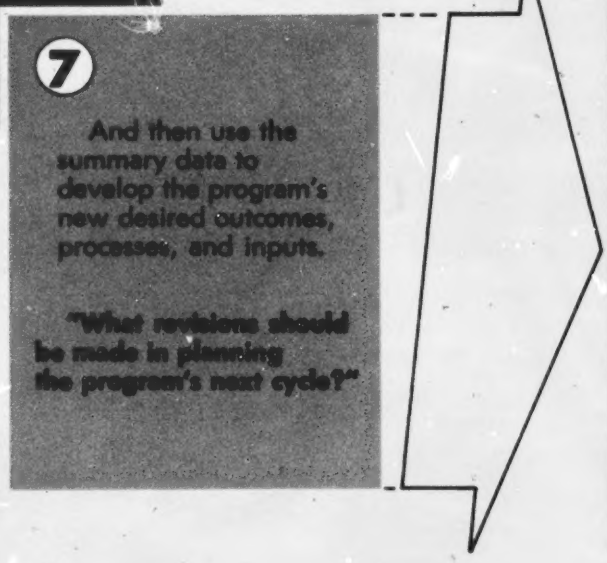
This then is the particular view in SPECS of what it means to plan, implement, evaluate, and replan any program of activities in a school or school district. It calls for the collection of six "boxes" or data files of comparable information about the program—its desired outcomes, processes, and inputs and its actual outcomes, processes, and inputs. And it encourages those responsible for the program to make this information explicit and to use it systematically as they develop the program's initial plan, monitor and modify its processes during implementation, evaluate its results, and eventually formulate a revised plan for its next cycle of operation.



SUMMATIVE EVALUATION
(debriefing)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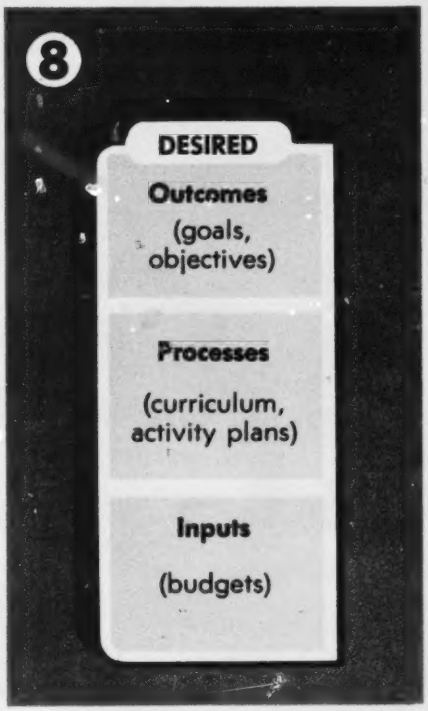
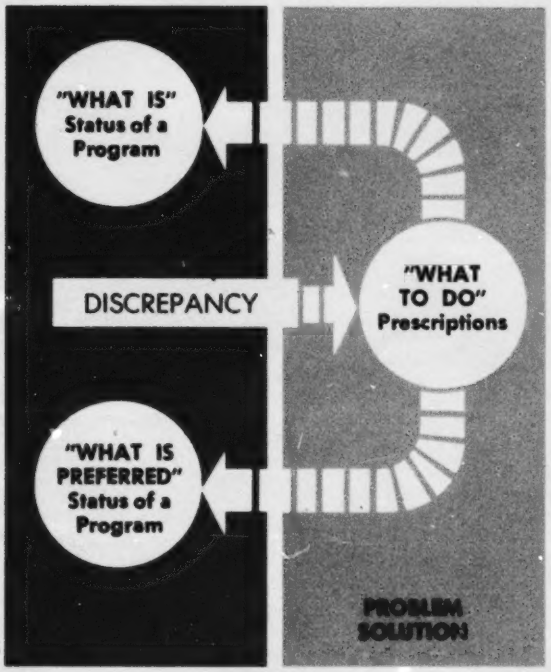
And then use the summary data to develop the program's new desired outcomes, processes, and inputs.
"What revisions should be made in planning the program's next cycle?"

FORMATIVE EVALUATION
(new plan)



III. SPECS As a Districtwide Design for Program Development

Equally as important as the SPECS approach to individual program planning, evaluation, and replanning is its systems design for districtwide program assessment and development. The design, which identifies three subsystems of SPECS, represents an approach to needs assessment for an entire school district, for it suggests a specific set of procedures for comparing the outcomes of a district's individual programs with the broad educational goals defined by the district's larger community.


"WHAT IS" Status of a Program
DISCREPANCY
"WHAT IS PREFERRED" Status of a Program
"WHAT TO DO" Prescriptions
PROBLEM SOLUTION

The logic undergirding the system design of SPECS is exactly the same as that which undergirds the SPECS approach to individual program planning and evaluation. At the microlevel of a program—be it one or more courses of instruction or a set of noninstructional activities—those responsible for the program need to engage in a series of problem-identification and problem-solving activities. They need to monitor continually the "what is" and "what is preferred" states of the program—its actual and desired outcomes, processes, and inputs. When they discover significant discrepancies between those two states, they need to take whatever actions are necessary to reduce the discrepancies, sometimes by modifying their desires for the program, other times by acting to affect its actual outcomes, processes, and costs. It is precisely these diagnostic and prescriptive skills that qualify public school teachers and administrators as professional educators worthy of continued public support.

Similarly, at the macrolevel, those who are ultimately responsible for the operation of an entire school district—the members of its board of education with the support of its central office staff—need to engage in the same sequence of problem-identification and problem-solving activities. First, with the help of all professional staff, board members need to monitor continually the "what is" state of district programs—their objectives and results, their planned and actual processes, and their budgeted and actual costs. Components One, Two, and Three of SPECS, which comprise its **operating subsystem,** are designed to help a school board meet this first need.

At the same time, because public schools are public institutions, board members and central office staff need to monitor at a broader level the "what is preferred" state of the district's total program structure, taking their cues substantially from the community of state and local citizens who represent the district's ultimate clientele and its chief source of revenue. Component Four, the **monitoring subsystem** of SPECS, is addressed to this second need.

And third, when significant discrepancies are discerned between the outcomes of district programs and the educational expectations of the district's larger community, school board members need to assign priorities to those discrepancies, develop relevant policies, and stimulate prescriptive action that will reduce the most critical discrepancies. Sometimes, this may be done by modifying the "what is" state of district programs; at other times, it may be more appropriate to try to influence the community's perceptions of "what is preferred." Component Five of SPECS, its **policy-making subsystem,** is designed specifically to help school board members and district staff meet this challenge of assessing and improving the match between current program outcomes and community-defined educational expectations.

Whether at the level of an individual classroom, a school building, or an entire school district, SPECS represents a systems approach to managing school programs. It encourages and facilitates the systematic collection and use of information to plan, evaluate, and replan those programs. And,

perhaps most important, it presumes that program effectiveness for students will increase substantially as the processes for planning and evaluating those programs become more data-based, output-oriented, and self-corrective.

The remainder of this section examines the three subsystems of SPECS in detail—the components that comprise them, their related implementation tasks, and the minimal "informational products" that each component is designed to produce.

The Operating Subsystem of SPECS

Components One, Two, and Three of SPECS comprise its operating subsystem and are primarily the responsibility of a school district's professional staff. Component One identifies the specific "units of analysis"—i.e., programs, activities, functions—that will be used for budgeting and cost accounting program inputs in Component Two and for planning, evaluating, and interrelating program outcomes and processes in Component Three. Taken together, these three components are designed to monitor the "what is" state of the district's operating programs and to produce six kinds of related informational products.

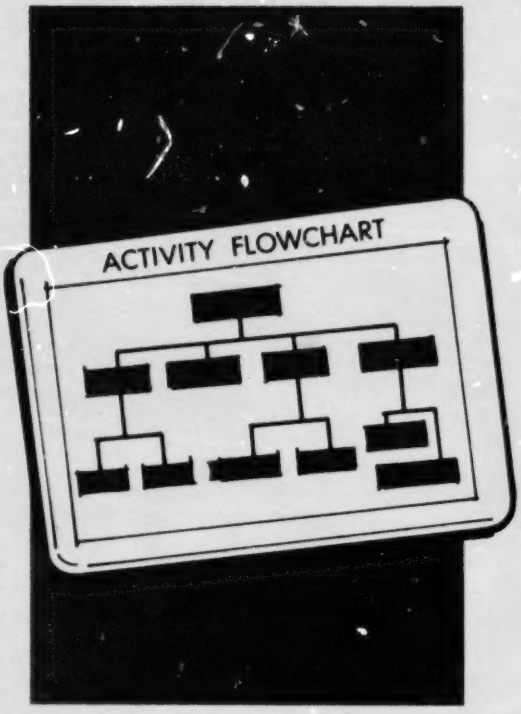
Component One: A Systems Analysis of the School District

Component One of SPECS calls for a descriptive systems analysis of the school district. It requires collection and display of information about the district's current array of instructional and noninstructional functions, activities, or programs—what they are, where and when they occur, who is responsible for each, and, most important, how they are interrelated. To generate this information about the district's current "program structure," district personnel begin by identifying a few broad categories of activities, and then they disaggregate each of these broad categories into levels of increasingly specific activities.

In addition, Component One requires district personnel to answer the following question: "For which particular clusters of operating programs do we want to collect desired and actual outcome, process, and input data, and then use these data for systematic program planning, evaluation, replanning, and articulation?" Ideally, all data about a program's outcomes, processes, and inputs probably ought to be collected and used at the same level of detail. Realistically, however, complete comparability of data is not always possible or practical. Whereas dollar data are easiest to generate for highly summarized programs like elementary education or district administration, program objectives and results are usually easiest to generate and identify for more specific programs like Ms. Smith's first grade reading class and the district's staff personnel office.

Given this trade-off, it is probably most practical to identify a level of operating programs for collecting and using dollar data in Component Two that is different from the level designated for collecting and using process and outcome data in Component Three. For example, in instructional areas, we have found it most useful to generate and report dollar data at the level of content areas, and outcome and process data for planning and evaluation at least at the level of grades and courses within those content areas, if not at the level of individual classrooms.

The challenge of Component One, therefore, is (1) to identify the hierarchical relationships among current district programs and activities, and (2) to specify where in that hierarchy specific kinds of data should be collected and used in Component Two for program budgeting and cost accounting and in Component Three for program planning and evaluation. To meet this challenge, district staff find it useful to engage in some combination of the following implementation tasks:



- Completion of a questionnaire that is designed to identify, describe, and interrelate the district's current array of programs, functions, and activities.
- Use of the information presented in the completed questionnaire to develop a visual display of the hierarchy or structure of those programs, functions, and activities.
- Designation of the specific level of operating programs for which input data should be collected and reported in Component Two and for which outcome and process data should be collected and used in Component Three.
- Development of specific procedures for reviewing and updating at least once each school year the district's program structure and its designated programs for Component Two and Three data collection.

As district staff carry out these four tasks associated with Component One, they will be able to produce two different, but related informational products:

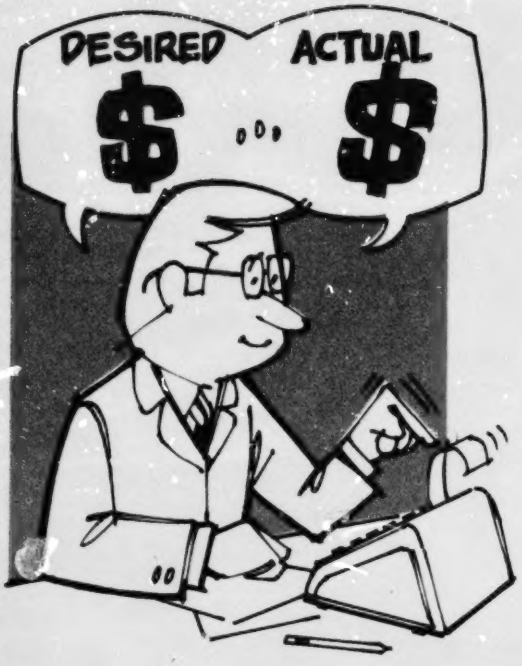
A visual display—for example, a flowchart or outline—that (1) is current each school year, (2) indicates clearly the hierarchical relationships among operating programs in the district, and (3) constitutes the district's program structure for program planning, budgeting, cost accounting, and evaluation.

Some indication—for example, a color or numerical code on the district's program structure—of the specific levels of operating programs for which cost data will be monitored in Component Two and for which outcome and process data will be monitored in Component Three.

Component Two: Program Budgeting and Cost Accounting

Component Two of SPECS focuses on desired and actual program inputs and helps a school district budget and cost account for its operating programs at whatever level of detail has been specified in Component One. To develop this program budgeting and cost accounting capability, district staff, primarily in the central office, engage in the following developmental activities:

- Development of a "chart of accounts"—like that presented in the U.S. Office of Education's revised edition of *Handbook Two*—that includes on one dimension the portion of the district's Component One program structure that has been identified for use in program budgeting and cost accounting; and, on a second dimension, specific "object-cost" categories that can be related to those operating programs and that have been disaggregated to a level of detail that assures usefulness of the resulting cost data.
- Development of a coding system for identifying each function and object-cost category in the resulting chart or matrix of accounts.
- Development, if necessary, of a "crosswalk" for relating categories of expenditure in the new program format to those included in the district's earlier line-item format.
- Development of a set of forms and procedures for gathering from building principals, teachers, department chairmen, and others in the district the basic information necessary to (1)



recast the district's current operating budget in program format, (2) report current program expenditures, and (3) build budgets for subsequent years in a program format.

- Actual translation of the district's current operating budget from line-item format to program format.
- Development of a computerized data-processing system to handle the expected flow of budgetary and expenditure data relevant to each program.

As the members of a district's business office staff gradually implement Component Two and make the district's program budgeting and cost accounting system fully operational, they will be able to produce two additional informational products for the district at regular intervals:

An annual program budget that presents the projected costs (and eventually, to the extent that Component Three is implemented, the expected outcomes as well) of each program identified in the district's program structure.

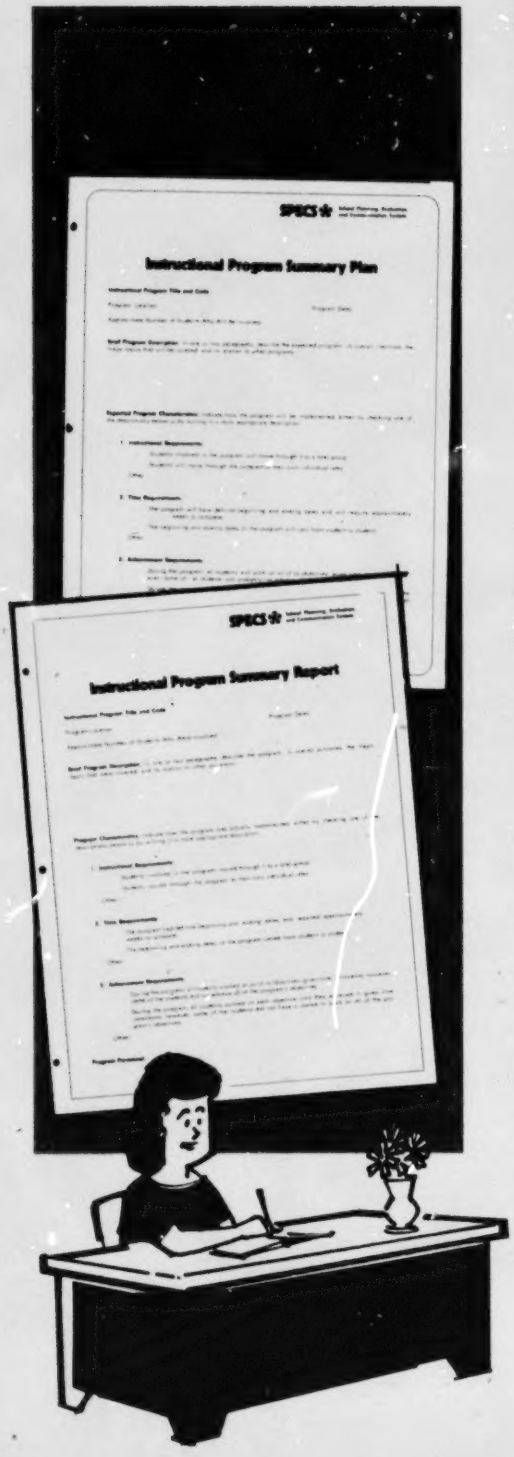
Comparable program accounting reports, prepared at least quarterly for key central office and building personnel, that indicate for each program (1) its budget for the current fiscal year, (2) its expenditures and encumbrances to date, and (3) the balance remaining in the program account for possible reallocation during the remainder of the fiscal year.

Component Three: Program Planning, Evaluation, and Communication

For two reasons, Component Three is the heart of SPECS. First, it makes the SPECS approach to individual program planning and evaluation operational for district staff at the level of specific courses and classrooms. And second, it encourages staff members to communicate with one another about district programs and to generate and use summary data about their programs as a basis for improving curricular scope and sequence within programs and districtwide articulation across all related programs.

At the level of individual programs, SPECS facilitates efforts by program staff to make explicit for themselves, students, and colleagues their general and specific plans for each program in which they are involved—their desired outcomes for the program, the specific processes they will employ to achieve those outcomes, and the resources required to mount those processes. Then, as the processes are actually implemented, SPECS encourages program staff to monitor and document the actual outcomes, processes, and inputs of the program. And finally, at the conclusion of the program, SPECS encourages program staff to evaluate its actual results and identify specific changes that should be made when replanning a next cycle of operation.

For example, to facilitate both general and specific planning and evaluation of instructional programs, we have developed two brief summary documents for highlighting a program's plans and results and three self-contained booklets for recording detailed information about the program during its implementation. The four-page Program Summary Plan asks those who are responsible for the program to identify prior to implementation (1) the overall purposes and characteristics of the program, (2) a small number of its most critical objectives, (3) its overall administrative, instructional, and/or evaluative processes, and (4) its required resources.



Then, given this overview of the program in the form of a long-range summarized plan, the three self-contained booklets encourage program staff to spell out the program's plans in considerably more detail and to monitor carefully its day-to-day processes and outcomes. The first of the three booklets focuses on program objectives and, as appropriate, on the specific indicators that will be used by program staff to assess a student's performance on each objective.

The second booklet focuses on program processes—the specific instructional methods, procedures, and exercises that will be used—and includes space for recording the processes planned for each day of the program and then for evaluating their effectiveness at least weekly. Designed much like a traditional lesson plan book, the process booklet comes in two alternative forms, one for recording forty weeks of plans for only one program, the other for recording forty weeks of plans for up to three programs. Unlike a usual lesson plan book, however, both forms of the process booklet encourage attention to program outcomes and to regular evaluation of the actual processes used in the classroom.

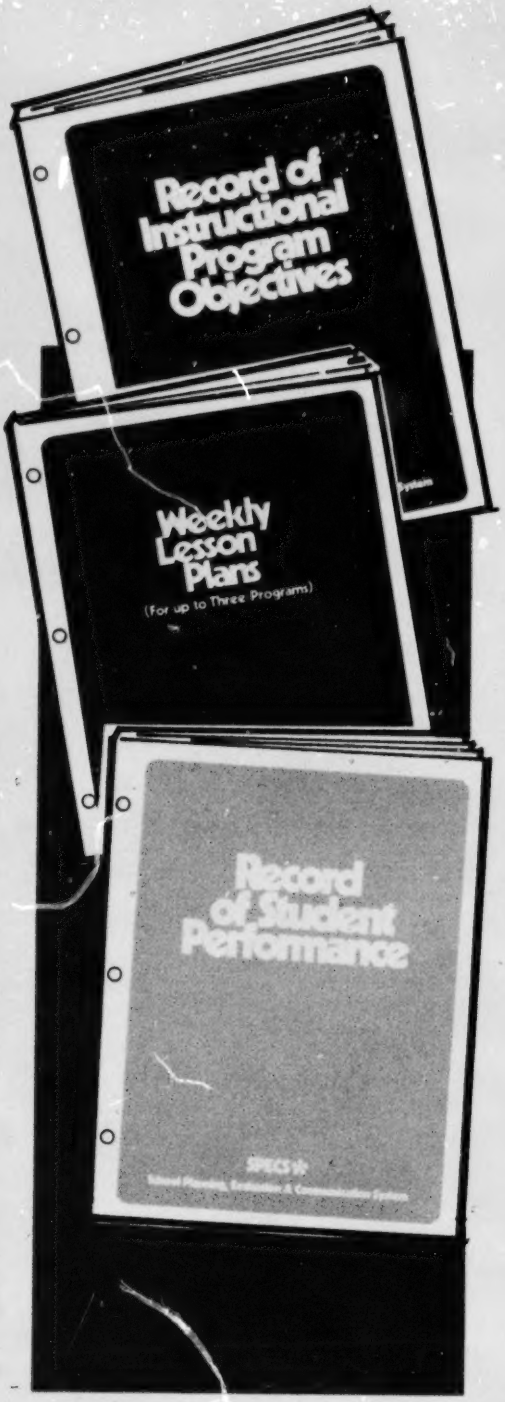
The third booklet focuses on actual program outcomes and includes specially designed pages for recording specific measures of each student's performance on each program objective before, during, and/or after instruction. The last two of these three booklets, then, effectively replace existing lesson plan books and grade books used by program staff.

Finally, a brief, six-page Program Summary Report asks staff to summarize the program's actual results, including (1) any modifications made in its original critical objectives, (2) actual performance data for all students involved in the program, (3) a brief *post facto* analysis of the program's processes, (4) a summary of its budgeted and actual costs, and (5) a set of specific recommendations for modifying the program's objectives and/or processes during another cycle of operation.

The three booklets for detailed planning and evaluation of instructional programs have been designed to help the professional staff of a school district carry out their day-to-day responsibilities in particular programs. By contrast, the two program summary documents have been designed to serve two other purposes. First the Program Summary Plan can be used by program staff during their initial thinking about a program to identify the program's most critical terminal objectives and general processes, and thus to establish a useful context for more detailed program planning and evaluation. And, second, both the Program Summary Plan and its comparable Summary Report can be used as public documents for "reporting out" to students, colleagues, administrators, board members, and the public at large on the expected and actual outcomes of a complete program. In comparable form and manner, summarized information about all programs in a school or district can be regularly collected, shared, and used to improve the curricular scope and sequence of instructional programs and the articulation of all programs across different school buildings and classrooms.

Taken together, these various Component Three activities and documents are designed to help the staff of a school district describe, monitor, and modify the "what is" state of district programs—their plans, their effects upon clients, their revised plans, and their interrelationships across program levels and classrooms. As staff members gradually phase the district's many operating programs—both instructional and noninstructional—into Component Three, they engage in the following major implementation tasks:

- Identification, selection, and training of one or more staff members who can coordinate all Component Three activities in the district.
- Development of an appropriate, multiyear schedule for phasing programs, schools, and individual staff members into the use of Component Three documents for program planning and evaluation.


Record of Instructional Program Objectives
Weekly Lesson Plans
(For up to Three Programs)
Record of Student Performance

- Design of a series of inservice sessions for district staff members as they become involved in Component Three activities.
- Development of specific procedures for identifying and meeting the continuing inservice needs of staff members as they write objectives, develop evaluative techniques, design relevant procedures, and track actual performance measures on specific program objectives.
- Development by district staff of flowcharts that identify and interrelate at increasingly specific levels of detail the content, activities, and objectives of those Component Three operating programs that have been identified by name only in Component One.
- Increasing use by district staff of the two SPECS documents for summarizing program plans and results and of the various booklets for detailed program planning and evaluation.
- Development of specific procedures for monitoring and reviewing the plans and results for programs already phased into Component Three.
- Gradual development of new ways of reporting program objectives and performance data to students, their parents, their future teachers, and other professional staff.
- Development and implementation of specific procedures for summarizing annually the outcome data reported for comparable programs, and for then using these data to improve curricular scope and sequence and to increase the articulation of all programs across individual school buildings and classrooms.

As staff members phase various instructional and noninstructional programs into Component Three of SPECS, they will regularly be able to produce two more informational products relevant to the "what is" state of those programs:

A bank of program planning and evaluation documents, including (1) Program Summary Plans that present an overview of district programs prior to their implementation; (2) comparable Program Summary Reports that indicate results within those programs and specific recommendations for their next cycles of implementation; and (3) specific documents that provide detailed supportive information about each program's objectives, processes, and results.

A cumulative report prepared annually if possible, that (1) further summarizes the critical desired and actual outcomes of district programs as they have been reported on Program Summary Reports; (2) recommends specific actions that can be taken to improve curricular scope and sequence, increase program articulation across individual buildings and classrooms, and disseminate information about particularly effective program methods and materials; and (3) serves as the professional staff's input to Component Five by providing a review of the "what is" state of district programs.

The Monitoring Subsystem of SPECS

Component Four: Community-Based Broad Goal Definition, is the monitoring subsystem of SPECS. It assumes that a public school district's citizens have both a right and a responsibility to identify and periodically refine a structure of broad educational goals addressed to the general question, "Given local, state, and national interests, what do we, the citizens of this community, think our schools should be doing for students?"[1] Furthermore, SPECS assumes that, at least initially, this effort to involve a district's community in broad goal definition can be carried out independently of the district's effort to involve professional staff in systematic program planning and evaluation (Components One, Two, and Three). That is, defining the "what is preferred" state of a district at a macrolevel of analysis can occur at any time—before, during, or after efforts have been made to identify at a more microlevel the "what is" state of particular district programs.

SPECS does not prescribe a single best way to define a district's "community," nor does it specify a single set of procedures for involving that community in defining broad goals or expectations for its schools. Rather, the SPECS materials present a series of guiding questions related to both product and process that need to be addressed carefully when implementing Component Four, and they describe in detail one possible strategy for involving a district's community in broad goal definition. Other strategies can, of course, range on a continuum from those that ask a community group to generate all goal statements themselves to those that invite a community group simply to rank-order a predetermined list of goal statements.

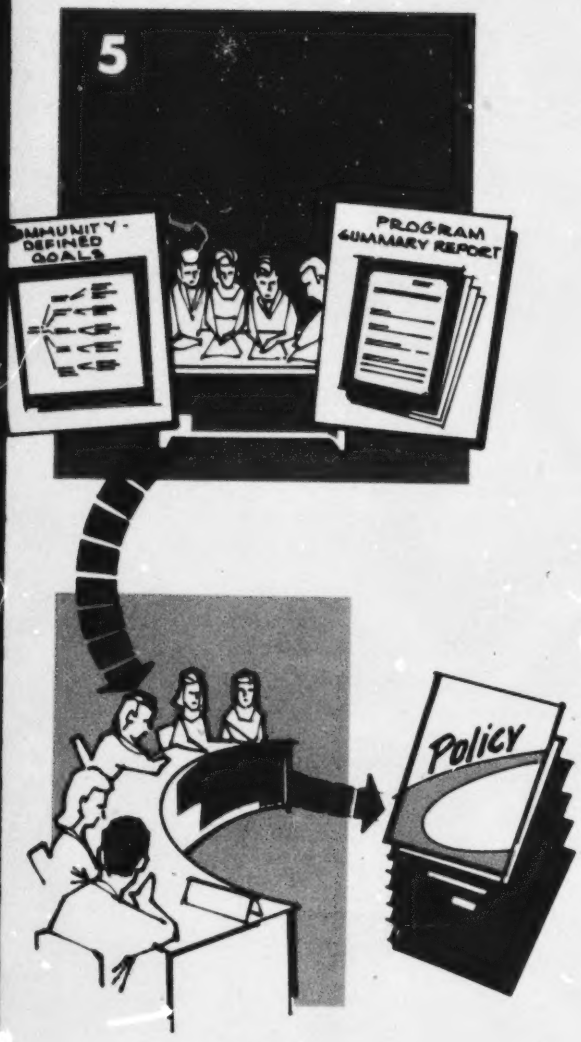
Regardless of how a district's community is defined or its structure of goals is developed, Component Four, like all of the components of SPECS, should not be viewed as a one-time-only activity. Rather, Component Four should become a continuing set of activities in the district for involving a representative sample of its community in defining the "what is preferred" state of its public schools. It should therefore result in the following informational product:

A set or structure of broad educational goals that (1) have been generated and reviewed by a representative sample of citizens in the community within the past two or three years and (2) have been formally accepted or acknowledged by the district's board of education as the community's input to Component Five and its processes for periodically and systematically examining the relationship between community expectations and program outcomes.

The Policy-Making Subsystem of SPECS

The policy-making subsystem of SPECS is Component Five: Assessing Achievement of the District's Broad Goals. It builds upon data generated in the other two subsystems and, as its name implies, it is most relevant to a district's board of education. By means of a specially constituted committee of professional staff members and/or representatives of a district's community, board members are encouraged periodically to identify, assess, and resolve discrepancies between the current outcomes of school district programs reported in summary form in Component Three and the broad educational goals defined by the district's community in Component Four. In effect,

[1] Note that the focus of goal definition suggested here is upon broad goals rather than specific objectives, and upon instructional or learning outcomes rather than upon instructional processes and methods. The focus need not be so constrained. Quite legitimately, community-based broad goal definition can address not only what schools should be doing for students, but also how they should be doing it. In addition, it can result in both goals for instructional programs and goals for all the other noninstructional activities carried out in a school district.



Component Five is the culminating needs assessment component of SPECS, for it enables all who are involved in the district—board members, professional staff, and citizens—to identify and deal with any gaps that may exist between the district's actual and preferred states.

When the summarized outcomes of district programs, including both objectives and actual results, are arrayed in Component Five against the district's community-defined educational goals, three kinds of needs assessment questions can be addressed.

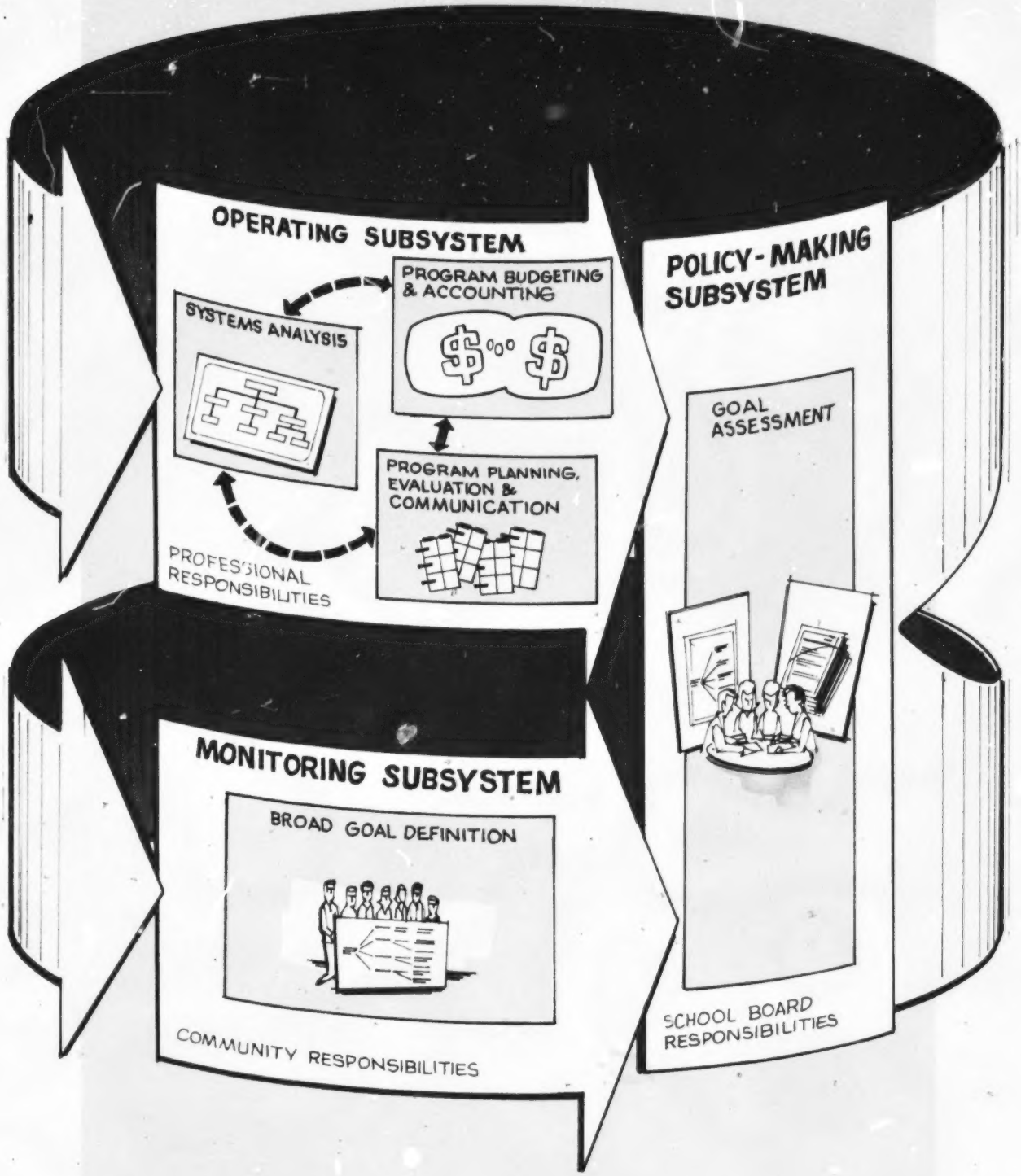
- First, to what degree are the goal statements in the district's goal structure conceptually compatible with one another? Similarly, to what extent are the critical objectives identified within ongoing district programs compatible?
- Second, to what degree is there a logical match between the district's program objectives and its broadly defined community expectations?
- And third, where there is an identifiable match between program objectives and community expectations, are current performance levels on those objectives satisfactory?

As answers to these three questions identify specific district needs—for greater consonance, for better matches, or for higher levels of performance within programs—the district's board of education or its delegated committee can assign priorities to those needs and develop specific strategies for dealing with the needs that are most critical. By controlling district policies and resources, communicating new information to the community, and stimulating the development of new programs and modification of existing programs, board members can influence substantially either the future outcomes of district programs, the educational expectations of the district's citizenry, or both.

Even partial implementation of Component Five, therefore, results in yet another informational product in a school district:

A periodic report that (1) identifies specific district needs for greater consonance between the district's community goals and its program objectives, a better match between the two, and/or higher levels of performance within each program, and (2) includes specific suggestions developed by the district's board or its delegated committee for dealing with the most critical of those needs.

This then is the SPECS systems design for districtwide program assessment and development. It consists of three subsystems and five components of activity. It encourages continuous monitoring of the desired and actual states of a school district and results in eight different kinds of informational products. It facilitates the work of professional staff as they plan, implement, evaluate, and replan individual district programs and, then later, as they try to improve articulation among those various programs. And perhaps most important, it preserves and interrelates the professional, community, and school board prerogatives that inevitably characterize a public school district.


OPERATING SUBSYSTEM
PROGRAM BUDGETING & ACCOUNTING
SYSTEMS ANALYSIS
PROGRAM PLANNING, EVALUATION & COMMUNICATION
PROFESSIONAL RESPONSIBILITIES
POLICY-MAKING SUBSYSTEM
GOAL ASSESSMENT
SCHOOL BOARD RESPONSIBILITIES
MONITORING SUBSYSTEM
BROAD GOAL DEFINITION
COMMUNITY RESPONSIBILITIES

IV. SPECS As a Series of Implementation Activities and Materials

If implemented completely, SPECS has implications for nearly every program and every individual in a school district. It makes more explicit the instructional interaction among students and teachers. It stimulates new kinds of communication and coordination among individuals in a district's central office, its classrooms, and its larger community of parents and citizens. And it affects the work of a school board by encouraging its members to monitor more carefully and systematically than ever before the relationships between outcomes of the district's many operating programs and the broad educational expectations of its community.

Given this potential "reactivity" of a school district to SPECS, and given the large number of operating programs that can eventually be phased into Components Two, Three, and Five of the system, SPECS cannot be implemented effectively by a small number of individuals in a matter of weeks. Rather, full implementation of the system's five components requires careful planning and preparation, probably some outside assistance (particularly during the first year or two), and the involvement of many individuals in the district over a number of years.

Based upon our experiences in South Lane School District during the SPECS pilot project and in nearly a dozen other school districts since the fall of 1973, we now consider the following to be extremely important, if not essential, to successful implementation of SPECS in any public school district:

- **several months of careful preparation prior to beginning to implement the system**, including, for example, orientation sessions for district staff and board members, detailed planning for implementing each of the five components, and small scale piloting of the crucial processes and materials.
- **a long-term strategy for implementation** that gradually phases SPECS into the district—component by component, school by school, program by program, staff member by staff member.
- **a multiyear SPECS master plan** that has been developed by a representative committee of teachers and administrators, that describes in detail the district's specific strategy for implementation, and that identifies the tasks involved, the indicators and time-lines for their completion, and the personnel responsible for each.
- **an indistrict SPECS Coordinator** and, if possible, one or more staff members who can serve as Component Three specialists or as building-level coordinators of program planning and evaluation activities.
- **adequate time for staff members** to engage in meaningful program planning, evaluation, replanning, and articulation, including maximum flexibility in the scheduling and use of that time.
- **sufficient SPECS-related inservice training** for district staff members during the early stages of implementation to ensure that they understand the purposes of the system, are in sympathy with them, can carry them out, and understand the alternative uses of the SPECS instructional and operational materials —especially the documents for planning and evaluating instructional and noninstructional programs.
- **adequate resources to provide additional inservice training** for district staff members as they become increasingly involved in defining program objectives, gathering actual student perform-

ance data, designing new curricular and instructional processes, using output data as a basis for allocating resources among competing programs, and so forth.

- **a management system for SPECS** that permits flexibility and experimentation, maintains open channels of communication among district staff at all levels, and encourages staff members to share their concerns, discuss them openly, and deal with them collectively.
- **implementation guidelines and policy statements** that clarify important issues related to the implementation of SPECS and are broadly disseminated and periodically reviewed. Such issues might include the relationship of program and student results to teacher evaluation, the district's timeline for phasing programs into Component Three documentation, the private or public use of Program Summaries and of detailed planning and evaluation documents, and the freedom of district staff members to deviate from procedures recommended by SPECS or by district administrators.
- **an advisory committee on SPECS** that represents divergent points of view, and a set of procedures that committee members can use throughout the implementation period to monitor SPECS-related activities, solicit reactions, and recommend modifications of either SPECS or the particular processes being used in the district to implement it.
- **clearly defined annual decision-points in the implementation process** at which times reports can be prepared and presented to the district's board of education—reports that document the prior year of SPECS-related activities in the district and recommend that either (1) implementation of the system be continued as planned, (2) it be continued, but with specific modifications, or (3) it be terminated for certain specific reasons.

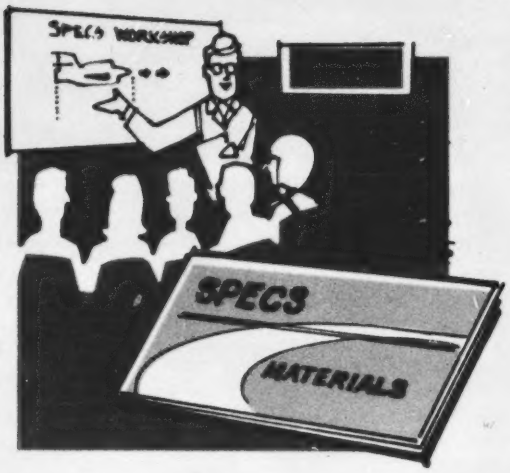
To facilitate the implementation process, therefore, we have designed a three-phase series of activities and developed a set of related materials that can help the staff of a school district gradually move from simply exploring SPECS to beginning to plan for its implementation and eventually to implementing one or more of its five components. For discussion purposes in the remainder of this chapter, we have identified these three phases as exploratory, preparatory, and implementation activities.

Exploratory Activities

This initial phase of activities usually begins with a request for information about SPECS and concludes with a decision to engage in a series of "next steps" designed to prepare, but not commit, a school district for implementation of all or part of the system.

During this phase, which may last from one to six months, key personnel in the district are encouraged to engage in a variety of exploratory activities and to gather enough information that they can make an informed decision on the desirability of developing detailed plans for implementation. For instance, they are encouraged to review the SPECS orientation materials, including this monograph. They are encouraged to talk directly with members of the SPECS development team or with a trained SPECS consultant, if one is located in their particular region.[1] And they are encouraged to invite individuals who are knowledgeable about SPECS to make one or more brief presentations to different groups in the district.

[1] A current list of SPECS consultants can be obtained from the center.



Since 1973, over 500 educators throughout the United States have found a one- or two-day SPECS orientation workshop to be an effective and efficient way to learn a great deal about the system in a relatively short period of time. Sometimes these workshops have been attended by representative personnel from a number of school districts, including superintendents, business managers, directors of instruction, building principals, teachers, and school board members. At other times, workshops have been conducted for personnel of a single school district, often as the second or third step in a series of SPECS exploratory activities.

There is, of course, no single pattern or timeline of exploratory activities applicable to all school districts. Rather, both must evolve as the key personnel in each district pursue their own special interests in the system, review relevant materials, talk with knowledgeable individuals, listen to presentations, and attend or sponsor a formal SPECS orientation workshop. And when those key personnel feel they have sufficient information about SPECS to decide whether or not to devote several months to careful preparation for implementing one or more of its five components, the exploratory phase of SPECS-related activities in the district comes to a close.

Preparatory Activities

The second phase of activities begins with the district's decision to engage in a series of preparatory steps and ends with a formal go/no go decision on actual implementation. Engaging in these preparatory activities is, therefore, not tantamount to a multiyear commitment to implement SPECS, but it does represent a commitment of district time, personnel, and resources to preparing for implementation.

More specifically, this second phase of activities, which usually requires three to six months to complete, has three principal objectives:

1. To orient a substantial portion of the district's professional staff to SPECS and to the district's reasons for interest in the system.
2. To develop, review, and refine a comprehensive master plan that can guide initial implementation of the system's five components.
3. To create within the district a compelling rationale and environment for engaging in data-based program planning and evaluation.

To achieve these objectives, district personnel typically engage in some combination of the following preparatory activities:

- Identification of an individual or small group that can assume primary responsibility for designing and coordinating the district's SPECS preparatory activities.
- Presentations, workshops, and meetings that introduce SPECS to an increasing number of district staff members and that help develop staff sensitivity to the need for more explicit program budgeting and cost accounting, more systematic program planning, better program articulation, and more data-based program evaluation.
- Development of an initial data base in the district relevant to existing programs—descriptions of them, their current budgets and costs, their current objectives, indications of their effectiveness, and any other information that may be available.
- Pilot use of some of the SPECS operational documents (particularly those relevant to Component Three) by a small number of staff members who can later report on their experiences and make specific recommendations for further use of the documents in the district.

- Creation and indepth training of a planning committee consisting of six to ten key staff members in the district, including teachers, building and central office administrators, and the one or two individuals who will serve as the district's internal SPECS Coordinators.
- Development by the planning committee of a comprehensive multiyear master plan for implementation of SPECS.

Developing the district's master plan for implementation is one of the most critical of all SPECS preparatory activities. To the extent possible, the plan should span three or four years of implementation, indicating in some detail how the district plans to phase into each component of SPECS. It should describe, for example, the general goals to be met during the first three years of implementation, the specific implementation tasks that will be carried out each year, and the indicators that will be used to assess their completion. It should describe how the district will manage SPECS, how implementation will be coordinated at the district, building, and classroom levels, and who ultimately will be responsible for each task. It should include guidelines for providing necessary staff inservice training, descriptions of the outside consultation anticipated, and estimates of the initial and continuing costs of implementation to the district. And it should include clear go/no go decision points scattered throughout the implementation period.

In sum, a district's master plan ought to describe clearly both its long-range intentions for SPECS—where it expects to be three or four years into implementation—as well as its detailed plans for at least the first year or two of activity. Although these intentions are likely to be in a state of continual review and revision once implementation begins, they ought to be clearly understood prior to a decision to implement.

To support these preparatory activities, district personnel are encouraged to draw heavily upon all of the SPECS materials, particularly the orientation materials described earlier and a set of guidelines for developing a master plan. The precise combination, timing, and costs of SPECS preparatory activities will necessarily vary from district to district. Just as there is no single best way to learn about SPECS initially, so there is no single best way to prepare for its implementation. Therefore, each district's commitment to engage in preparatory activities probably should include a written description of the particular preimplementation activities that will be carried out, the specific responsibilities of district personnel (and of any outside SPECS consultants who may be employed) as they carry out those activities, and the direct and indirect costs associated with each activity.

The culmination of this second phase of SPECS-related activities is a formal go/no go decision by a school district's board of education that indicates (1) its philosophical support of the intentions described in the master plan and (2) its operational and budgetary support for at least the first year or two of proposed implementation activities. Although the specific criteria and procedures for reaching this decision will vary among school boards, each will probably want to include a careful review of the district's master plan, an assessment of staff reactions to what they know of SPECS and may have experienced on a pilot basis, and a systematic analysis of the relative costs and benefits of implementing SPECS rather than some other system for data-based program planning and evaluation.

Implementation Activities

The third phase of SPECS-related activities begins in a school district when its board makes a "go" decision on implementation and ends when all anticipated implementation tasks have been completed. Throughout the period, the district's master plan provides the essential guidelines for monitoring, managing, and assessing the implementation process, since it identifies in detail the specific tasks that need to be accomplished, by whom, when, and how well. In addition, if the district requires the services of an outside SPECS consultant during the implementation process, a formal contract for those services can take its cues directly from the master plan.

As personnel in a district begin to carry out the various tasks described in the district's master plan, and as they begin to implement the five components of SPECS, two other kinds of SPECS materials, in addition to the orientation materials, become particularly helpful. One of these is the series of SPECS implementation booklets that are designed for use by district staff as they implement the various components of the system. Taken together, the booklets present a detailed description of the five components of SPECS and include both illustrative documents for a fictitious school district and guidelines for implementing each component in any district. Because they are organized in terms of the five components, the various booklets are not equally relevant to all personnel in a district, and so they can be used selectively for both inservice training and actual implementation. Designing an inservice program that maximizes the potential effectiveness of these implementation materials for different groups in a district has already been identified as one of the major responsibilities of a planning committee as it develops the district's master plan for implementation.

The other SPECS materials that become particularly important during implementation are the various formats and documents for making different kinds of program-related information explicit. These include suggested formats and documents for:

- Displaying the district's current operating programs (Componone One).
- Reporting the budgeted and actual costs of those programs (Component Two).
- Monitoring, summarizing, and communicating about program plans, results, and revised plans (Component Three).
- Displaying community-defined educational goals (Component Four).
- Displaying discrepancies between the summarized outcomes of district programs and the educational goals defined by the district's larger community (Component Five).

Some of these suggested formats and documents are illustrated in the SPECS implementation booklets. Others, like those relevant to program planning and evaluation in Component Three, are available in quantity for actual use by district staff.

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To summarize, personnel in a school district interested in SPECS typically engage in three successive phases of SPECS-related activities. Beginning with a series of **exploratory activities**, they learn enough about the system to determine their interest in it and their desire to engage in a series of "next steps" designed to prepare, but not commit them to actual implementation of all or part of the system. If their decision on "next steps" is positive, district personnel then organize and carry out several months of **preparatory activities.** These activities include orientating a large proportion of the district's staff to SPECS, developing a comprehensive, multiyear master plan for implementation, and creating a compelling environment in the district for more explicit data-based program planning and evaluation. The culmination of the preparatory phase is a go/no go decision on the specific activities identified in the master plan. If the decision is "go," district personnel have the necessary clearance to begin **implementation activities,** the third phase of SPECS-related activities.

To support these three phases of activity, we have developed several different kinds of materials: orientation materials for introducing SPECS to teachers, administrators, and school board members; a series of implementation booklets relevant to the system's five components; and an array of illustrative and actual documents for successfully implementing and operating each component.

V. SPECS As a Set of Intended Effects

SPECS is essentially a set of processes for generating specific kinds of information to help plan instructional and noninstructional programs, evaluate their outcomes, relate these outcomes to one another and to community-defined educational expectations, and then use all this information to develop revised program plans. One of its most obvious intended effects, therefore, is that it will provide a district's professional staff, citizens, and board members with more and better information to answer three successive questions: "What precisely are we trying to do for clients, in both our instructional and noninstructional programs?" "How well are we doing it?" "And what can we do better the next time around?" As SPECS is implemented in a school district, information about current programs and activities should become increasingly clear, specific, purposive, explicit, and shared. And the information generated should present a more complete picture of each program—not only its planned procedures, but also its objectives, required resources, and actual outcomes, processes, and costs.

Immediate Informational Products

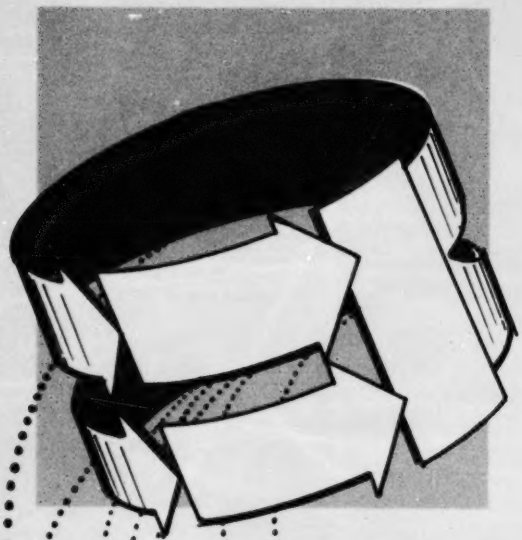
More specifically, full implementation and operation of SPECS' five components can lead to the following cluster of immediate informational products:

The Five Components of SPECS	Potential Informational Products of Implementation
One: A Systems Analysis of the School District	• A written description of the district's current operating programs—what they are, how they are organized, where they occur, and who is responsible for them. • A visual display of the district's current program structure, indicating the hierarchical relationships among all ongoing programs and activities. • Some indication of the lowest levels of programs for which cost, process, and outcome data will be monitored in Components Two and Three.
Two: Program Budgeting and Cost Accounting	• A two-dimensional matrix or chart of accounts of the district's current instructional and noninstructional programs (presented at whatever level of detail has been selected in Component One) and their related object-cost categories. • An annual program budget that presents the projected costs—and eventually the expected outcomes—of each program identified in the district's chart of accounts. • Periodic cost accounting reports that indicate each program's budget for the current fiscal year, its expenditures and encumbrances to date, and the balance remaining for possible reallocation.

Three: Program Planning, Evaluation, and Communication	• Flowcharts that identify at increasingly specific levels of detail the content, activities, and objectives of those Component Three operating programs that have been identified by name only in Component One. • Program Summary Plans that have been developed for programs prior to their implementation and Program Summary Reports that have been developed after completion. • Supportive planning and evaluation documents that present detailed information about each program. • Assessment instruments completed by program personnel and others for a sample of program summaries and detailed planning and evaluation documents. • A cumulative annual report that summarizes the desired and actual outcomes of district programs. • Evidence that the annual report has in fact stimulated staff members to reassess individual student needs, improve curriculum scope and sequence, increase program articulation across grades and schools, and disseminate information about program processes that have proven to be particularly effective.
Four: Community-Based Broad Goal Definition	• A set of broad educational goals that have been generated by a representative sample of citizens in the community and then accepted by the district's board of education as the community's input to Component Five.
Five: Assessing Achievement of the District's Broad Goals	• A periodic report that (1) highlights current discrepancies between the outcomes of district programs and the broad educational goals defined by the district's community, and (2) includes specific recommendations to or from the district's school board for dealing with the most critical of those discrepancies.

As these informational products are produced in a district, they are likely to have a number of useful spinoff effects. For example, the effort to identify and describe current programs and activities may well lead to parallel efforts to standardize nomenclature, modify program coverage in particular buildings, or redefine role responsibilities of particular staff members. Similarly, comparing program outcomes with community expectations cannot help but simultaneously increase staff awareness of what the public expects of its schools and public awareness of what the schools can and cannot do for students.

Long-Term Effects

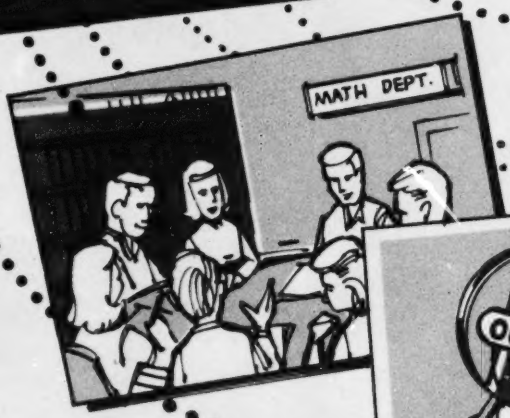


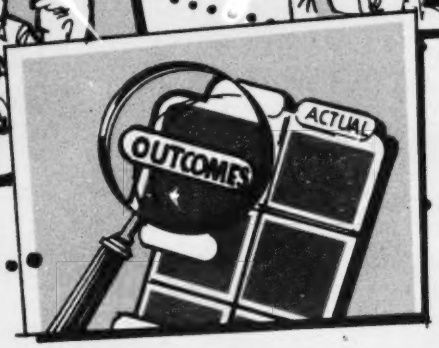
In addition to its immediate informational products and their likely spinoff effects, SPECS is designed to encourage a number of long-term changes in the behaviors and attitudes of those individuals in a school district who are involved in its implementation. As its five components are gradually implemented, there should be increasing evidence in the district of (1) a more systematic approach to program planning and evaluation, (2) a more systemic view of the school and classroom, (3) greater efforts to individualize instruction, and (4) increased clarity of the prerogatives of a school district's citizenry, professional staff, and board of education.

More Systematic Program Planning and Evaluation

As SPECS is implemented in a school district, the system is likely to have three related effects upon those who are responsible for program planning and evaluation: (1) they will engage in more planning that also includes careful assessment and evaluation; (2) they will become increasingly oriented to program outcomes; and (3) their self-corrective behavior will become more explicit.

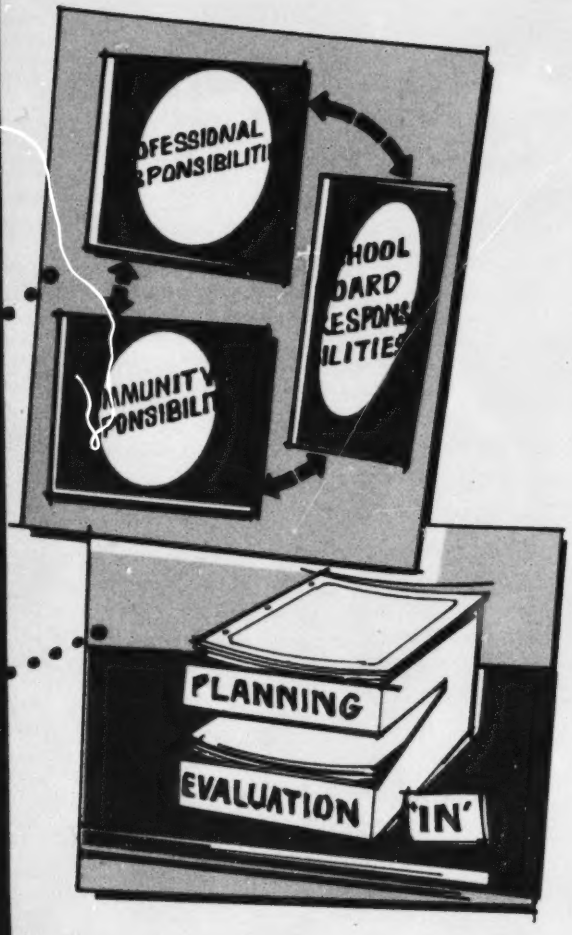
Traditionally, educators have recognized the value of careful program planning that includes, in advance of implementation, clear designation of the desired or expected outcomes, processes, and costs of educational programs. They have not, however, always been equally attentive to carefully monitoring and assessing the actual outcomes, processes, and costs of those programs while they are in progress and then evaluating their end results. The procedures in SPECS are specifically designed to make those responsible for school district programs increasingly aware that program planning and program evaluation are inseparable activities, two essential sides of the





same coin. As SPECS is implemented, therefore, program decision-makers can be expected, with increasing frequency and ever-improving data, to follow up their program planning with careful program evaluation for both formative and summative purposes.

Quite understandably, teachers and administrators frequently focus more of their attention on the particular program activities in which they personally engage than they do on the expected or actual outcomes of those activities for students and other clients in the program. A second intended effect of SPECS is an increasing orientation to outcomes among those responsible for school district programs. Specifying desired program outcomes will increasingly become the explicit starting point for program planning, rather than remaining implicit and presumptive; program processes and costs will increasingly be explicated in terms of specific program outcomes; and program evaluation will be based more upon satisfactory changes in the performance of students and other clients of programs than upon professional satisfaction with the teaching process itself or with a particular management process.



Those responsible for program planning and evaluation at classroom, school, and district levels will increasingly behave cybernetically or self-correctively. Gathering and using data about past program performance will become the basis and rationale for developing future program plans. As a result, the selection of a particular combination of desired outcomes, processes, and inputs for a program's next cycle will be based less on ideological or intuitive rationale and more on empirical, verifiable data about the actual outcomes, processes, and inputs associated with prior cycles of the same or comparable programs.

A More Systemic View of the School and Classroom

As the degree of implementation of SPECS increases in a school district, and as its language and intentions become better understood and accepted by district personnel, the climate within individual classrooms and across school buildings will be characterized by increased openness of communication, more sharing of program-related information, and a cooperative search for more effective ways of achieving desired program outcomes. The traditional eggcrate view of schools as clusters of independent classrooms will gradually be replaced by a more systemic view of schools that recognizes the many interdependencies that inevitably exist among students, parents, teachers, administrators, classroom settings, district policies, hierarchies of instructional objectives, curricular materials, and instructional methods. Evidence of this more systemic view of the classroom and school will take a number of forms, including:

- More sharing of information among students, parents, and professional staff about the district's ongoing programs (their desired and actual outcomes, processes, and inputs) and about the performance of individuals and groups of students enrolled in those programs.
- More continuous and cooperative program planning and evaluation, organized by groups of teachers and administrators to capitalize on the experiences and competencies of each group member.
- A greater desire of professional staff to reach out and explore beyond their immediate classrooms—to seek out and participate in inservice programs, to experiment with new or modified curricular materials and instructional processes, and to conduct periodic classroom observations and follow-up conferences with fellow staff members in comparable programs.

Greater Efforts to Individualize Instruction

Component Three of SPECS and its related operational documents systematize and facilitate the collection of data regarding the performance of individual students on specific program objectives. As these performance

data are generated both before and after instruction, those responsible for planning, evaluating, and replanning instructional programs will become increasingly conscious of individual differences among students. In response, they will make a greater effort to attend to those differences in their revised program plans. Over time, they will work to devise new ways of organizing themselves, their students, and their curriculum in order to vary for individual students any or all of the critical variables that characterize any classroom: the objectives toward which students work, the particular instructional processes employed to reach those objectives, and the time devoted to any particular objective or related processes.

It is certainly true that the current organization of schools and the multiple demands typically placed upon most teachers prevent them from treating each student as an independent "operating program" with his or her own set of desired and actual outcomes, processes, and inputs. However, the collection of student performance data which SPECS encourages and facilitates will just as certainly stimulate increased efforts among teachers and administrators to vary at least the processes followed and the time spent by different students in their pursuit of common objectives.

Increased Role Clarity Within a District

The three subsystems of SPECS are designed to clarify the different but complementary roles and responsibilities of a school district's citizenry, professional staff, and board of education. Components One, Two, and Three, which constitute the **operating subsystem** of SPECS, make the professional staff of a school district responsible for identifying the "what is" state of the district as they plan, evaluate, replan, and interrelate its many operating programs. Simultaneously, Component Four, which constitutes the **monitoring subsystem** of SPECS, provides a representative sample of the district's larger community with a continuing opportunity to make explicit their own views of the "what is preferred" state of the district. And Component Five, the **policy-making subsystem** of SPECS, encourages the district's board of education to maximize the degree and quality of "match" between the summarized outcomes of the district's operating programs and the broad educational expectations of its larger community.

As the three subsystems of SPECS become increasingly operational in a school district, and as the prerogatives of the district's citizens, professional staff, and board of education become increasingly clear, a number of spinoff effects are likely to result, including:

- More frequent and specific communication between the district and its community regarding the outcomes for students of the district's many instructional programs and activities.
- More use by the board of education of program outcome data when making program decisions—particularly those decisions affecting the allocation of resources.
- Greater use by the district's professional staff of student reporting procedures that present performance measures on specific objectives, rather than traditional test scores and letter grades.
- Greater collaboration among professional staff in defining the terminal objectives of the district's elementary and secondary school programs.
- Greater professional control of classroom conditions, curricular and instructional processes, and budgetary decisions that staff members consider crucial to achieving desired program outcomes.

In sum, as they become operational in a school district, the three subsystems of SPECS ideally ought to create a healthy tension among the district's citizens, its professional staff, and its board of education—a tension that will increase the accountability of each group to the others without vitiating their necessary and legitimate organizational prerogatives.

VI. Concluding Remarks

Conceptually, SPECS is a way of thinking systematically about school programs—their plans and results, their many interrelationships, and their congruence with broad, public expectations. Operationally, it is a set of procedures and materials that a school district's staff can use to plan, evaluate, and replan school programs, determine the public's overall expectations of its schools, and periodically assess the degree and quality of match between program outcomes and public expectations. Viewed one way, SPECS is an educational program planning and evaluation system; viewed another way, it is a management system for collecting, storing, and using information about school programs.

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Unlike most systems of its kind, SPECS does not prescribe a linear, top-down flow of activities in a school district, beginning with involvement of citizens in broad goal definition and eventually leading to translation of those goals into specific course-level objectives for teachers to implement in their classrooms. Rather, SPECS has been designed to preserve the legitimate but separate prerogatives and responsibilities of a school district's citizens, staff, and school board members. Each has a role to play in identifying district needs and deciding how best to meet those needs. Each has a perspective that needs to be represented. Each has a voice to be heard as members of the board strive to resolve discrepancies between the current and desired states of district programs. SPECS has been designed to preserve these roles and simultaneously facilitate these planning and evaluation processes in a school district.

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To be most meaningful to the professional staff of an operating school district, SPECS should be viewed essentially as a vehicle for improved program planning and evaluation. It should be seen as a catalyst or change agent that can stimulate more explicit documentation of district curriculum, greater attention to program scope and sequence, better use of program outcome data to explain and justify program expenditures, and more systematic assessment of the district's educational accomplishments and needs.

As a catalyst, however, SPECS and its specific recommended procedures and materials ought to be open to continual modification by district staff in order to meet their special needs for information and their particular preferences for collecting and using that information. After a few years of implementation activities in a school district, SPECS as originally designed should lose its identity and evolve into the district's own program planning, evaluation, and communication system—retaining only a basic orientation to outcomes, an explicit effort to base program planning and evaluation on verifiable data, and a continuing encouragement of self-corrective behavior on the part of both individual staff members and the district as an organization.

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Any technological, data-based system that is designed to improve educational program planning and evaluation makes a number of important assumptions about human beings, schools, and the teaching/learning process. For example, it assumes a particular view of the world—and therefore of schools and classrooms—that defines "what is" primarily in terms of what can be observed and measured. It assumes that decision-making about school programs will usually be "better"—that is, more effective and efficient—if it is rational, outcome-oriented, and data-based. And it assumes that the personal satisfaction of both adults and children in a school will increase if they have before them explicit information about what they are trying to do, how they are trying to do it, and whether or not they are succeeding.

More specifically, a system like SPECS assumes that conclusions and inferences drawn about students are only as valid as the verifiable data supporting them. It assumes that the responsibilities of a teacher include not only interacting with students, but also diagnosing students' needs, planning instructional procedures to meet those needs, evaluating their actual effects, and modifying them as necessary to increase their effectiveness. And perhaps most significant, a system like SPECS assumes that schools as organizations and the personnel employed by them have an obligation to be both purposive and accountable—able both to define objectives for themselves, their students, and their programs and to provide verifiable evidence of whether or not those objectives have been achieved.

Obviously, there are many ways to view the world, and the assumptions underlying SPECS may well not be compatible with some of those other world views.

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Finally, SPECS does not naively assume that public school teachers, administrators, and board members are currently nonplanners and nonevaluators, or that its proposed procedures and materials are entirely new to educators. SPECS recognizes that, simply to survive, individuals responsible for public school programs and activities must engage in some form of planning and evaluation. And while some do so quite effectively in their heads, others already do so very systematically on paper.

What SPECS advocates, therefore, is not that public school personnel do something entirely new, Rather, it encourages all who are involved in the operation of a public school district to systematically collect, share, and communicate comparable information about district programs—their desired and actual outcomes, processes, and inputs—thereby increasing both the usefulness of the district's data base for programmatic decision-making and, hopefully, the benefits of those programs to their clients.